



## **PLAN REVIEW REQUIREMENTS** **FOR LP GAS INSTALLATIONS**



The following information is required for a plan review submittal for LP Gas dispensing and storage installations. **Required information shall only be submitted by a Utah licensed LP Gas installer** and shall include the original drawings or readable copy. **Do not send faxes. Insufficient information, non readable copy or nonpayment of fees will be cause for rejection of plans.**

**A.** For LP Gas dispensing and storage systems of **5,000 water gallons or less**. A detailed sketch or plan shall be submitted to the State Fire Marshal's Office. In addition to the sketch, the following information shall be provided. **Failure to provide requested information shall be cause for rejection.**

1. Name, address, and phone number of concern where the tank is to be located as well as name(s) of contact personnel at installation location.
2. Name, address, and phone number of the Utah State licensed and certified installers.
3. Provide a copy of the approval from the authority having jurisdiction: **Building, Planning, Zoning, and or Fire Department.**
4. **Required fees shall accompany plan submittal for review.** (See Item D)
5. **The plan or sketch shall include:** size of tank(s) to be installed (water gallons), compass headings showing north, distance from tank to property lines, existing buildings, streets, roads and sidewalks, overhead power lines, and all sources of ignition in all directions.
  - i. Installation of tank and or piping as per **NFPA 58 (2011), NFPA 54 (2012), International Fire Code (2012 Edition) Article 38,** and as per **manufacturer's installation instructions.**
  - ii. **Type of approved vehicle protection to be used:** Guard posts or other approved means of protection for tank and piping shall be provided. **International Fire Code (2012 Edition) section 312.**
    1. Guard posts shall be constructed of steel not less than 4 inches in diameter and concrete filled, spaced no more than 4 feet apart, set no less than 3 feet deep in a concrete footing of not less than a 15 inch diameter, with the top of the posts not less than 3 feet above the ground, and not less than 3 feet from the tank.
  - iii. The **liquid withdrawal** opening used with vehicle dispensers and dispensing stations **shall be equipped** with one of the following:
    1. **An internal valve** fitted for remote closure and automatic shutoff using thermal (fire) actuation.

2. A positive shutoff valve that is located as close to the container as practical in combination with an excess-flow valve installed in the container, plus an emergency shutoff valve that is fitted for remote closure and installed downstream in the line as close as practical to the positive shutoff valve.
- iv. **An identified and accessible remote emergency shutoff device** for either the internal valve or the emergency shutoff valve shall be installed **not less than 3 ft. or more than 100 ft. from the liquid transfer point.**
  - v. **All dispensers either shall be installed on a concrete foundation** or shall be part of a complete storage and dispensing unit mounted on a common base and installed on masonry or noncombustible supports upon a concrete foundation.
  - vi. **An identified and accessible switch or circuit breaker** shall be installed at a location **not less than 20 ft. or more than 100 ft.** from the dispensing device to shut down power in the event of a fire, accident, or other emergency. This switch or circuit breaker shall be marked and visible from the point of transfer.
  - vii. Type(s) of security and protection against tampering to be provided.
  - viii. Provide location of fire extinguisher within 75 feet of dispenser.  
**Minimum 18 lb. B.C. rating.**
  - ix. Provide signage: **No Smoking, Propane, and Flammable Gas.**
  - x. Painting of tank(s) and **all** piping.
- B.** The complete plans and specifications for all LP Gas systems **commercial and or private use** involving the storage of **more than 5,000 water gallons**, shall be submitted to the Utah State Fire Marshal's Office by a Utah licensed LP Gas installer, and must receive approval from the **Utah LP Gas board** and the **Utah State Fire Marshal's Office prior to installation.** In addition to the plans, the following information shall be provided. **Failure to provide requested information shall be cause for rejection.**
1. Name, address, and phone number of concern where the tank is to be located as well as name(s) of contact personnel at installation location.
  2. Name, address, and phone number of the Utah State licensed and certified installers.
  3. Provide a copy of approval from the authority having jurisdiction: **Building, Planning, Zoning Commission, and or Fire Department.**

4. A written **Fire Safety Analysis shall be provided** for new installations and for existing installations that have an aggregate capacity of more than 4000 gallons. Existing installations shall comply with this requirement within 2 years of the effective date of this code or by January 1, 2010.
5. **Required fees shall accompany plan submittal for review.** (See Item D)
6. **Plan or sketch to show:** compass heading showing north, distances from tank to property lines, existing buildings, streets, roads and sidewalks, overhead power lines, and all sources of ignition in all directions.
  - i. **Serial number, date of manufacture and pressure rating of 250 psig** of tank(s) to be installed (water gallons).
  - ii. All new, used or existing containers of 5000 water gallons or less, installed in the State of Utah or relocated within the State of Utah shall be stamped and meet the requirements listed in ASME, Boiler and Pressure Vessel Code, Section VIII, "Rules for the Construction of Unfired Pressure Vessels". All new, used or existing containers of more than 5000 water gallons, installed in the State of Utah or relocated within the State of Utah, shall be stamped and meet the requirements listed in ASME, Boiler and Pressure Vessel Code, Section VIII, "Rules for the Construction of Unfired Pressure Vessels", and shall be inspected for approval by the Division. If the Division has concerns about the integrity or condition of the container, additional nondestructive testing may be required to include but not limited to hydrostatic testing, ultrasonic metal thickness testing or any other testing as determined necessary by the Division. All incurred costs for additional testing required by the Division shall be the responsibility of the owner.
  - iii. Pier, saddle, or skid engineering plans and specifications.
  - iv. Piping and bulkhead engineering plans and specifications, with parts list: valves, emergency shut offs, etc. as per **NFPA 58 (2011)**, **NFPA 54 (2012)**, and the **International Fire Code (2012 Edition) Article 38**.
  - v. **Protection from vehicles:** Guard posts or other approved means shall be provided to protect storage tanks and connecting piping, valves and fittings, dispensing areas, and areas in use subject to vehicular damage. When guard posts are installed, the posts shall be installed as per the **International Fire Code (2012 Edition) section 312**.
    1. Constructed of steel not less than 4 inches (101.4 mm) in diameter and concrete filled.
    2. Spaced not more than 4 feet (1219 mm) between posts on center.
    3. Set not less than 3 feet (914 mm) deep in a concrete footing of not less than a 15-inch (381 mm) diameter.
    4. Set with the top of the posts not less than 3 feet (914 mm) above ground.
    5. Located not less than 3 feet (914 mm) from the tank.

6. Other types of non-combustible vehicle protection approved by this office.

vi. Provide location of **minimum 18 lb. B.C.** fire extinguisher **within 75 feet** of installation.

vii. **Enclosed with not less than a 6 ft. high industrial-type fence**, chain link fence, or type(s) of approved security and protection against tampering to be provided.

viii. Provide signage: **No Smoking, Propane, and Flammable Gas.**

ix. Painting of tank(s) and **all** piping.

**C. Plan review shall remain valid for a maximum of six months** from initial approval from the State Fire Marshal's Office. A written request for an extension of continuance must be submitted for approval within 30 days of deadline.

**D. Fee schedule for plan review.** (R710-6-6.3.2)

1. **5,000** water gallons or **less:** **\$75.00**

2. **More than 5,000** water gallons: **\$150.00**

**E. Required fees shall accompany plan submittal for review.**

Make checks payable to **Utah State Fire Marshals Office** and submit to:

**UTAH STATE FIRE MARSHAL  
5272 SOUTH College Dr. Suite 302  
Murray, UTAH 84123-2611  
801-284-6350**



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